

Remarks

Claims 9 and 19 remain pending in this application after entry of this paper.

Claim 9 recites a broadband communication system of the type utilizing xDSL packet-based technologies. The system comprises an upstream xDSL modem, a twisted pair connected to the upstream xDSL modem, and a plurality of taps defined along the twisted pair. A plurality of downstream xDSL modems are located at a plurality of user sites. Each downstream xDSL modem is in communication with a corresponding tap of the plurality of taps. The upstream xDSL modem and the plurality of downstream xDSL modems provide packet-based point-to-multipoint communication between the upstream xDSL modem and the plurality of downstream xDSL modems at the plurality of user sites.

The taps are located along the twisted pair between the upstream xDSL modem and the plurality of user sites. The plurality of downstream xDSL modems are operative to transmit to the upstream xDSL modem in a contention-based protocol. The upstream xDSL modem is operative to transmit to the plurality of downstream xDSL modems in a broadcast-based protocol.

Claim 19 recites a broadband communication method for xDSL packet-based applications. The method comprises broadcasting from a point, over a twisted pair, with an upstream xDSL modem. The method further comprises receiving at a plurality of points with a plurality of downstream xDSL modems at a plurality of user sites. Each downstream xDSL modem is in communication with a corresponding tap of a plurality of taps defined along the twisted pair between the upstream xDSL modem and the plurality of user sites.

The upstream xDSL modem and the plurality of downstream xDSL modems provide packet-based point-to-multipoint communication between the upstream xDSL modem and the plurality of downstream xDSL modems at the plurality of user sites.

The method further comprises transmitting from the plurality of downstream xDSL modems to the upstream xDSL modem in a contention-based protocol. Finally, the method further comprises transmitting from the upstream xDSL modem to the plurality of downstream xDSL modems in a broadcast-based protocol.

The claims recite specific combinations including xDSL packet-based technologies and point-to-multipoint communication involving a plurality of user sites, upstream transmissions in a contention-based protocol, and downstream transmissions in a broadcast-based protocol to reach the plurality of downstream xDSL modems at the plurality of user sites.


Previously presented claims 9 and 19 were rejected under 35 U.S.C. 102(e) as being anticipated by Yamano et al. (U.S. Patent No. 6,075,814). Applicants have amended these claims to more particularly point out the invention. Yamano fails to anticipate the claimed invention as recited by amended claims 9 and 19. The Examiner makes reference to several portions of Yamano including, for example, Figure 7 and column 19, lines 21-29. Yamano does describe CSMA/CD and the coupling of more than one modem to a single telephone line in the subscriber residence. There is no suggestion of the claimed arrangement involving the plurality of downstream xDSL modems at the plurality of user sites. Yamano is only describing a specific arrangement within the subscriber residence and fails to suggest the claimed invention.

Further, the claims recite, in combination, the upstream xDSL modem being operative to transmit to the plurality of downstream xDSL modems in a broadcast-based protocol, where the taps are located along the twisted pair between the upstream xDSL modem and the plurality of user sites. The Examiner only states that the upstream xDSL modem in Yamano could transmit a packet to all downstream modems connected to the twisted pair. To the extent that Yamano mentions multi-cast data packets, Yamano describes multi-line network access circuit 800 (Figure 9). Specifically, Yamano describes each of lines 501-505 using a single one of DSP resources 531-533. Nevertheless, this arrangement fails to suggest the

claimed invention wherein taps are located along the twisted pair between the upstream xDSL modem and the plurality of user sites in combination with the downstream contention-based protocol and the upstream broadcast-based protocol. In Yamano switch matrix 530 actively routes the output signal provided by DSP 531 to each of D/A converters 511-515 to multi-cast data packets over telephone lines 501-505 that lead to subscriber residences.

For the reasons given above, claims 9 and 19 are believed to be in condition for allowance, and such action is respectfully requested.

Respectfully submitted,
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